



## Certificate of Analysis

|                                |                                                               |                   |        |
|--------------------------------|---------------------------------------------------------------|-------------------|--------|
| Product Name:                  | Huperzine-A / Huperzine-A Extract                             | Batch Number:     | Varies |
| Botanical Name / Cas No.:      | <i>Lycopodium serratum</i> Thunb. /<br>102518-79-6            | Manufacture Date: | Varies |
| Used part / Molecular Formula: | Whole herb / C <sub>15</sub> H <sub>18</sub> N <sub>2</sub> O | Expiry Date:      | Varies |

| IDENTIFICATION |                                    | SPECIFICATION               | RESULT       |
|----------------|------------------------------------|-----------------------------|--------------|
| Assay (HPLC)   |                                    | 1%                          | 1.02 - 1.24% |
| Physical       | Appearance                         | Brown yellow / White powder | Complies     |
|                | Odor & Taste                       | Characteristic              | Complies     |
|                | Particle size                      | 100% pass 80 mesh           | Complies     |
|                | Loss on drying                     | ≤ 5%                        | 0.92 - 3.20% |
|                | Ash                                | ≤ 1 - 5%                    | 0.22 - 3.15% |
| Chemical       | Heavy Metals                       | ≤ 10 ppm                    | Complies     |
|                | Lead (Pb)                          | ≤ 2 ppm                     | Complies     |
|                | Arsenic (As)                       | ≤ 2 ppm                     | Complies     |
|                | Cadmium (Cd)                       | ≤ 2 ppm                     | Complies     |
|                | Mercury (Hg)                       | ≤ 0.5 - 1 ppm               | Complies     |
| Microbial      | Total plate count                  | ≤ 1000 - 3000 cfu/g         | Complies     |
|                | Yeast & mold                       | ≤ 100 cfu/g                 | Complies     |
|                | E.coli, Salmonella, Staphylococcus | Negative                    | Complies     |

|      |                   |                                     |
|------|-------------------|-------------------------------------|
| Else | Storage condition | Sealed, kept in shady and dry place |
|      | Shelf life        | Two years                           |

